

**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions and listings of claims in the application:

**LISTING OF CLAIMS:**

1-7. (cancelled).

8. (currently amended): A The composition of claim 1 comprising an antibody or fragment thereof, wherein said antibody or said fragment comprises at least one heavy chain variable region and at least one light chain variable region, wherein said heavy chain variable region comprises three sequential-complementarity-determining regions comprising the amino acid sequences of SEQ ID NOS:1-3, and wherein said light chain variable region comprises three sequential-complementarity-determining regions comprising the amino acid sequences of SEQ ID NOS:4-6, respectively.

9-10. (cancelled).

11. (currently amended): A composition comprising an antibody or fragment thereof. The composition of claim 9, wherein said antibody or said fragment comprises a heavy chain variable region, wherein said heavy chain variable region comprises the amino acid sequence of SEQ ID NO:7.

12-13. (cancelled).

14. (currently amended): A~~The~~ composition comprising an antibody or fragment thereof, wherein said antibody or said fragment comprises a light chain variable region, wherein ~~said~~~~of claim 12,~~ light chain wherein said ~~light chain~~-variable region comprises the amino acid sequence of SEQ ID NO:8.

15. (currently amended): A~~The~~ composition comprising an antibody or fragment thereof~~of claim 1,~~ wherein said antibody or said fragment comprises a light chain variable region comprising an amino acid sequence selected from the group consisting of:

SEQ ID NO:9;

SEQ ID NO:10;

SEQ ID NO:11; and

SEQ ID NO:12.

16. (currently amended): ~~The~~A composition ~~of claim 1~~comprising an antibody or fragment thereof, wherein said antibody or said fragment comprises a heavy chain variable region comprising the amino acid sequence of SEQ ID NO:13.

17. (currently amended): The composition of any one of claims 78, 11 or 14-16, wherein said therapeutic agent is selected from the group consisting of docetaxel, paclitaxel, doxorubicin, epirubicin, cyclophosphamide, trastuzumab, capecitabine, tamoxifen, toremifene, letrozole, anastrozole, fulvestrant, exemestane, goserelin, oxaliplatin, carboplatin, cisplatin, dexamethasone, antide, bevacizumab, 5-fluorouracil, leucovorin, levamisole, irinotecan, etoposide, topotecan, gemcitabine, vinorelbine, estramustine, mitoxantrone, abarelix,

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zoledronate, streptozocin, rituximab, idarubicin, busulfan, chlorambucil, fludarabine, imatinib, cytarabine, ibritumomab, tositumomab, interferon alpha-2b, melphalam, bortezomib, altretamine, asparaginase, gefitinib, erlonitib, anti-EGF receptor antibody, thalidomide, carmustine, prednisone, interferon alpha-2a, vincristine, pamidronate, erythropoietin, bisphosphonate and an epothilone.

**18. (currently amended):** The composition of any one of claims 78, 11 or 14-16, wherein said therapeutic agent is selected from the group consisting of carboplatin, oxaliplatin, cisplatin, paclitaxel, docetaxel, gemcitabine, and camptothecin.

**19. (currently amended):** A method for inhibiting the growth of a cancer cell comprising contacting said cell with the composition of claim 48.

**20. (withdrawn-currently amended):** A method for treating a patient having a cancer comprising administering to said patient an effective amount of the composition of claim 48.

**21. (withdrawn-currently amended):** A method for treating a patient having a cancer comprising administering to said patient an effective amount of the pharmaceutical composition of claim 68.

**22. (previously presented):** The method of any one of claims 19-21, wherein said cancer is a cancer selected from the group consisting of breast cancer, colon cancer, ovarian

carcinoma, osteosarcoma, cervical cancer, prostate cancer, lung cancer, synovial carcinoma, pancreatic cancer, melanoma, multiple myeloma, neuroblastoma, and rhabdomyosarcoma.

23. (cancelled).

24. (currently amended): A method for inhibiting the growth of a cancer cell comprising contacting a cancer cell with the composition of claim ~~18~~.

25. (withdrawn-currently amended): A method for treating a patient having a cancer comprising administering to said patient having a cancer an effective amount of the composition of claim ~~18~~.

26. (previously presented): The method of claim 24, wherein said cell is contacted with said antibody or said fragment and said therapeutic agent concurrently.

27. (previously presented): The method of claim 24, wherein said cell is contacted with said antibody or said fragment and said therapeutic agent sequentially and in either order.

28. (withdrawn-previously presented): The method of claim 25, wherein said antibody or said fragment and said second therapeutic agent are administered concurrently.

29. **(withdrawn-previously presented):** The method of claim 25, wherein said antibody or said fragment and said second therapeutic agent are administered sequentially and in either order.

30. **(previously presented):** The method of claim 24 or 25, wherein said therapeutic agent is selected from the group consisting of docetaxel, paclitaxel, doxorubicin, epirubicin, cyclophosphamide, trastuzumab, capecitabine, tamoxifen, toremifene, letrozole, anastrozole, fulvestrant, exemestane, goserelin, oxaliplatin, carboplatin, cisplatin, dexamethasone, antide, bevacizumab, 5-fluorouracil, leucovorin, levamisole, irinotecan, etoposide, topotecan, gemcitabine, vinorelbine, estramustine, mitoxantrone, abarelix, zoledronate, streptozocin, rituximab, idarubicin, busulfan, chlorambucil, fludarabine, imatinib, cytarabine, ibritumomab, tositumomab, interferon alpha-2b, melphalam, bortezomib, altretamine, asparaginase, gefitinib, erlonitib, anti-EGF receptor antibody, thalidomide, carmustine, prednisone, interferon alpha-2a, vincristine, pamidronate, erythropoietin, bisphosphonate and an epothilone.

31. **(previously presented):** The method of claim 24 or 25, wherein said therapeutic agent is selected from the group consisting of carboplatin, oxaliplatin, cisplatin, paclitaxel, docetaxel, gemcitabine, and camptothecin.

32. **(currently amended):** The composition of claim ~~18~~, wherein said therapeutic agent is selected from the group consisting of bortezomib, melphalan, thalidomide, doxorubicin, cyclophosphamide, interferon alpha-2b, interferon alpha-2a, vincristine, pamidronate, carmustine, prednisone, zoledronate, erythropoietin, bisphosphonate and dexamethasone.

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**33. (currently amended):** The composition of any one of claims ~~78, 11 or 14~~-16, wherein said therapeutic agent is selected from the group consisting of bortezomib, melphalan, thalidomide, doxorubicin, cyclophosphamide, interferon alpha-2b, interferon alpha-2a, vincristine, pamidronate, carmustine, prednisone, zoledronate, erythropoietin, bisphosphonate and dexamethasone.

**34. (previously presented):** The method of claim 24 or 25, wherein said therapeutic agent is selected from the group consisting of bortezomib, melphalan, thalidomide, doxorubicin, cyclophosphamide, interferon alpha-2b, interferon alpha-2a, vincristine, pamidronate, carmustine, prednisone, zoledronate, erythropoietin, bisphosphonate and dexamethasone.

**35. (withdrawn):** The method according to claim 20, wherein said effective amount of the composition of claim 1 comprises about 1 mg/square meter to about 2000 mg/square meter of said antibody or fragment thereof, and about 10 mg/square meter to about 2000 mg/square meter of said therapeutic agent.

**36. (withdrawn):** The method according to claim 20, wherein said effective amount of the composition of claim 1 comprises about 10 mg/square meter to about 1000 mg/square meter of said antibody or fragment thereof, and about 50 mg/square meter to about 1000 mg/square meter of said therapeutic agent.

**37. (currently amended):** The composition of claim ~~18~~, wherein said antibody or said fragment is selected from the group consisting of:

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- (i) a resurfaced antibody or epitope binding fragment thereof;
- (ii) a human antibody or epitope binding fragment thereof;
- (iii) a humanized antibody or epitope binding fragment thereof; and
- (iv) an antibody produced by mouse hybridoma EM164 (ATCC accession number PTA 4457) or epitope binding fragment thereof.

**38. (new):** A composition comprising an isolated antibody or fragment thereof, wherein said antibody or said fragment comprises at least one heavy chain variable region and at least one light chain variable region, wherein said heavy chain variable region comprises three complementarity-determining regions comprising the amino acid sequences of SEQ ID NOS:1-3, and wherein said light chain variable region comprises three complementarity-determining regions comprising the amino acid sequences of SEQ ID NOS:4-6, and wherein said antibody or said fragment specifically binds to IGF-IR.

**39. (new):** A composition comprising an isolated antibody or fragment thereof, wherein said antibody or said fragment comprises at least one heavy chain variable region and at least one light chain variable region, wherein said heavy chain variable region comprises the amino acid sequence of SEQ ID NO:7, and wherein said antibody or said fragment specifically binds to IGF-IR.

**40. (new):** A composition comprising an isolated antibody or fragment thereof, comprising at least one heavy chain variable region and at least one light chain variable region, wherein said light chain variable comprises the amino acid sequence of SEQ ID NO:8.

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**41. (new):** A composition comprising an antibody or antibody fragment, wherein said antibody or said fragment comprises a heavy chain variable region and a light chain variable region, wherein said heavy chain variable region comprises heavy chain complementarity-determining regions comprising the amino acid sequences of SEQ ID NOS:1-3, and wherein said light chain variable region comprises the amino acid sequence of SEQ ID NO:8.

**42. (new):** A composition comprising an antibody or antibody fragment, wherein said antibody or said fragment comprises at least one heavy chain variable region and at least one light chain variable region, wherein said heavy chain variable region comprises three complementarity-determining regions comprising the amino acid sequences of SEQ ID NOS:1-3, and wherein said light chain variable region comprises three complementarity-determining regions comprising the amino acid sequences of SEQ ID NOS:4-6, respectively, and wherein said heavy chain variable region comprises SEQ ID NO:7.

**43. (new):** A composition comprising an antibody or fragment thereof of claim 38, comprising a light chain variable region having a sequence selected from the group consisting of:

SEQ ID NO:9,

SEQ ID NO:10,

SEQ ID NO:11 and

SEQ ID NO:12.



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**44. (new):** A composition comprising the antibody or fragment thereof of claim 38, comprising a heavy chain variable region comprising the amino acid sequence of SEQ ID NO:13.

**45. (new):** A pharmaceutical composition comprising the antibody or antibody fragment of claim 38 and a pharmaceutically acceptable carrier.

**46. (new):** A composition comprising a conjugate comprising the antibody or antibody fragment of claim 38 linked to a cytotoxic agent.

**47. (new):** The composition of claim 46, wherein said cytotoxic agent is selected from the group consisting of a maytansinoid, a small drug, a prodrug, a taxoid, CC-1065 and a CC-1065 analog.

**48. (new):** A pharmaceutical composition comprising the conjugate of claim 46 and a pharmaceutically acceptable carrier.

**49. (new):** A composition comprising a diagnostic reagent comprising the composition of claim 45, wherein said antibody or antibody fragment is labeled with a detectable moiety.

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**50. (new):** The composition of claim 49, wherein said detectable moiety is selected from the group consisting of a radiolabel, a fluorophore, a chromophore, an imaging agent and a metal ion.

**51. (new):** A method for inhibiting the growth of a cancer cell comprising contacting said cell with the composition of claim 38.

**52. (new):** A method for treating a patient having a cancer comprising administering to said patient an effective amount of the composition of claim 38.

**53. (new):** The method of claim 52 further comprising administering to said patient a therapeutic agent.

**54. (new):** The method of claim 53, wherein said therapeutic agent is a cytotoxic agent.

**55. (new):** A method for treating a patient having a cancer comprising administering to said patient an effective amount of the conjugate of claim 46.

**56. (new):** The method of treatment of claim 52, wherein said cancer is a cancer selected from the group consisting of breast cancer, colon cancer, ovarian carcinoma, osteosarcoma, cervical cancer, prostate cancer, lung cancer, synovial carcinoma and pancreatic cancer.

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**57. (new):** A method for diagnosing a subject suspect of having a cancer, said method comprising:

administering to said subject the composition of claim 49; and  
detecting the distribution of said reagent within said subject.

**58. (new):** The method of diagnosis of claim 57, wherein said cancer is a cancer selected from the group consisting of breast cancer, colon cancer, ovarian carcinoma, osteosarcoma, cervical cancer, prostate cancer, lung cancer, synovial carcinoma and pancreatic cancer.

**59. (new):** A composition comprising a murine antibody EM164 (ATCC deposit number PTA-4457) or a fragment thereof that specifically binds to an insulin-like growth factor-I receptor, wherein said antibody or fragment is an antagonist of said receptor and is devoid of agonist activity toward said receptor.

**60. (new):** A composition comprising a humanized or resurfaced antibody EM164 or a fragment thereof that specifically binds to an insulin-like growth factor-I receptor, wherein said antibody or fragment is an antagonist of said receptor and is devoid of agonist activity toward said receptor.

**61. (new):** The composition of claim 38, wherein said antibody or said fragment specifically binds to a human insulin-like growth factor-I receptor.

62. (new): The composition of claim 8, wherein the antibody or antibody fragment has at least one property selected from the group consisting of:

- a) inhibits cellular function of a IGF-IR without activating said IGF-IR; and
- b) inhibits tumor cell growth in the presence of serum by at least 80%.

63. (new): The composition of claim 55, wherein the antibody or antibody fragment has all of said properties.

64. (new): A composition comprising an isolated antibody or fragment thereof that specifically binds to IGF-IR, comprising at least one heavy chain variable region and at least one light chain variable region, wherein said heavy chain variable region comprises three complementarity-determining regions comprising the amino acid sequences of SEQ ID NOs:1, 54 and 3, and wherein said light chain variable region comprises three complementarity-determining regions comprising the amino acid sequences of SEQ ID NOs:4-6.

65. (new): A composition comprising an antibody or fragment thereof, comprising a heavy chain variable region having a sequence selected from the group consisting of:

- SEQ ID NO:39,
- SEQ ID NO:40,
- SEQ ID NO:41,
- SEQ ID NO:42,
- SEQ ID NO:43,
- SEQ ID NO: 44, and

SEQ ID NO:87.

66. (new): A composition comprising an antibody or fragment thereof, comprising a heavy chain variable region having a sequence selected from the group consisting of:

SEQ ID NO:53,

SEQ ID NO:54, and

SEQ ID NO:55.

67. (new): A composition comprising an isolated humanized antibody or epitope-binding antibody fragment that specifically binds to IGF-IR, comprising at least one heavy chain variable region and at least one light chain variable region, wherein said heavy chain variable region comprises three complementarity-determining regions comprising the amino acid sequences of SEQ ID NOS:1-3, respectively, and wherein said light chain variable region comprises three complementarity-determining regions comprising the amino acid sequences of SEQ ID NOS:4-6.

68. (new): A composition comprising an isolated humanized antibody or epitope-binding antibody fragment that specifically binds to IGF-IR, comprising at least one heavy chain variable region and at least one light chain variable region, wherein said heavy chain variable region comprises three complementarity-determining regions comprising the amino acid sequences of SEQ ID NOS:1-3, and wherein said light chain variable region comprising a sequence selected from the group consisting of SEQ ID NO:9; SEQ ID NO:10; SEQ ID NO:11; SEQ ID NO:12; SEQ ID NO:83; SEQ ID NO:84; SEQ ID NO:85, and SEQ ID NO:86.

**69. (new):** A composition comprising an isolated humanized antibody or epitope-binding antibody fragment that specifically binds to IGF-IR, comprising at least one heavy chain variable region and at least one light chain variable region, wherein said light chain variable region comprises three complementarity-determining regions comprising the amino acid sequences of SEQ ID NOS:4-6, and wherein said heavy chain variable region comprises a sequence selected from the group consisting of SEQ ID NO:13; and SEQ ID NO:88.

**70. (new):** A composition comprising an isolated humanized antibody or epitope-binding antibody fragment that specifically binds to IGF-IR, comprising a light chain variable region having a sequence selected from the group consisting of:

SEQ ID NO:83,

SEQ ID NO:84,

SEQ ID NO:85, and

SEQ ID NO:86.

**71. (new):** A composition comprising an isolated humanized antibody or epitope-binding antibody fragment that specifically binds to IGF-IR, wherein said humanized antibody or fragment comprises a heavy chain variable region having the sequence of SEQ ID NO:88.

**72. (new):** A composition comprising an antibody or fragment thereof, wherein said antibody or said fragment comprises a light chain variable region having a sequence selected from the group consisting of:

SEQ ID NO:33,

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SEQ ID NO:34,

SEQ ID NO:35,

SEQ ID NO:36, and

SEQ ID NO:37.